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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,761	06/04/2001	Jesper Leck Sorensen	20015	2347
20551	7590	01/18/2006	EXAMINER	
THORPE NORTH & WESTERN, LLP. 8180 SOUTH 700 EAST, SUITE 200 SANDY, UT 84070			GLASS, RUSSELL S	
			ART UNIT	PAPER NUMBER
			3626	

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,761

Applicant(s)

SORENSEN ET AL.

Examiner

Russell S. Glass

Art Unit

3626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06/04/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/14/02; 3/11/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 16-18 are objected to because of the following informalities: As written, the claims depend upon "any of claim(s) 12". Examiner considers this dependant language to be unclear and confusing. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 7 contains the trademark/trade name JAVABEANS. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a segment of a computer programming language and, accordingly, the identification/description is indefinite.

3. Claims 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. As per claim 19, the claim recites the limitation "the medical opinion program" in line 26. There is insufficient antecedent basis for this limitation in the claim.

5. As per claim 20, the claim recites the limitation "the neural network" in line 29. There is insufficient antecedent basis for this limitation in the claim. Examiner also believes that claim 20 should probably depend upon claim 19. For the purpose of examination, claim 20 is considered to be dependant upon claim 19.

6. As per claim 21, the claim is considered to be indefinite for the same reason as claim 19 upon which it depends.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 12, 13, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Bessette, (U.S. 6,263,330).

9. As per claim 12, Bessette discloses a healthcare management system comprising:

(a) a computer network for communicating between a plurality of user terminals linking medical practitioners, healthcare administrators, patients and educations establishments and/or students, whereby each have access at least to clinical data

stored in the database, (Bessette, Abstract; Col. 2, lines 10-13, 51-52; Col. 6, lines 64-67; Col. 7, lines 1-9, 25-26; Col. 12, line 35, Col. 14, lines 22-37); and

(b) an application system for running a plurality of application programs, the application system including a database storing clinical data and related patient data, (Bessette, Col. 7, lines 29-65, Col. 8, lines 5-20); and

(c) an interface to a plurality of further data stores each containing patient related information (Bessette, Fig. 7; Col. 9, lines 20-49).

10. As per claim 13, Bessette discloses a healthcare management system according to claim 12, wherein the patients and medical practitioners further have access to some or all of the related patient data stored in the database, (Bessette, Abstract; Col. 3, lines 42-44; Col. 5, lines 32,33; Col. 11, lines 32-67).

11. As per claim 15, Bessette discloses a healthcare management system according to claim 12, wherein the application programs include a program for recording patient medical history, (Bessette, Col. 12, lines 35-41; Col. 14, lines 22-37).

12. As per claim 16, Bessette discloses a healthcare management system according to any of claim 12, wherein the application programs include a program for requesting laboratory test data and the communications network includes a link with a laboratory to which a laboratory test request may be sent (Bessette, Col. 12, lines 20-27).

13. As per claim 17, Bessette discloses a healthcare management system according to any of claims 12, wherein the application programs include a medication administration program for recording the medication to be delivered to a given patient

Art Unit: 3626

and recording the history of dosage administration, (Bessette, Col. 12, lines 57-67; Col. 14, lines 22-37).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-3 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bessette, (U.S. 6,263,330).

15. As per claim 1, Bessette suggests a healthcare management system, comprising:

(a) a plurality of user terminals, (Bessette, Fig. 1; Fig. 3; col. 6, lines 17-20, 64-67; col. 7, lines 1-4);

(b) an application layer coupled to the user terminals and running a plurality of healthcare related application programs, (Bessette, Col. 5, lines 19-23; Col. 6, lines 22-24);

(c) a repository for holding patient data, the repository storing patient identification data and clinical data separately, whereby clinical data may be retrieved with or without the patient identification data to which it relates, (Bessette, Abstract; Col. 3, lines 42-44; Col. 5, lines 32,33; Col. 11, lines 32-39); and

(d) a data access layer arranged between the application layer and the repository for retrieving data from the repository or one of a plurality of further databases external to

Art Unit: 3626

the system, the data access layer including information regarding the location of data required by the application programs, (Bessette, Col. 3, lines 41-56; Col. 4, 53-57,; Col. 5, lines 23-27).

Bessette does not explicitly disclose an application layer, a repository storing patient identification data and clinical data separately, and a data access layer. However, Bessette does disclose a client and server executing an application, accessing stored clinical records while selectively masking personal data, and a data structure containing records with pointers to addresses of data for certain individuals.

Examiner believes the system disclosed by Bessette to be analogous to claim 1. It would be obvious to one of ordinary skill in the art, in view of Bessette, to configure the system described in claim 1. The motivation would be create a system to access shared medical files in an enlarged network and other external databases, (Bessette, Col. 3, lines 28-30).

16. As per claim 2, Bessette discloses a healthcare management system according to claim 1, wherein the data access layer comprises a query processor which receives requests for data from the application layer and includes means for retrieving a document describing where to find the data requested and means for retrieving that data and passing it to the application layer, (Bessette, Col. 1, lines 25-26; col. 3, lines 48-52; Col. 4, lines 65-67; Col. 5, lines 19-27, 36-41; Col. 8, lines 56-59; Col. 15, lines 25-30).

A discussion of the differences between Bessette and the claimed invention, why those differences would have been obvious to one of ordinary skill in the art, and the

motivation to make such changes is stated in the analysis of claim 1 and incorporated herein by reference.

17. As per claim 3, Bessette discloses a healthcare management system according to claim 2, wherein the document describing where to find requested data also describes the format of that data, (Bessette, Col. 3, lines 53-56; Col. 4, lines 29-31 Col. 5, lines 42-45; Col. 7, lines 56-65).

A discussion of the differences between Bessette and the claimed invention, why those differences would have been obvious to one of ordinary skill in the art, and the motivation to make such changes is stated in the analysis of claim 1 and incorporated herein by reference.

18. As per claim 9, Bessette suggests a healthcare system according to claim 1. However, Bessette discloses a system, wherein each of the user terminals includes a browser, (Bessette, Col. 15, line 67).

A discussion of the differences between Bessette and the claimed invention, why those differences would have been obvious to one of ordinary skill in the art, and the motivation to make such changes is stated in the analysis of claim 1 and incorporated herein by reference.

19. As per claim 10, Bessette suggests a healthcare system according to claim 9. However, Bessette discloses a system, wherein the terminals are fat client terminals, (Bessette, Col. 9, lines 1-5).

A discussion of the differences between Bessette and the claimed invention, why those differences would have been obvious to one of ordinary skill in the art, and the motivation to make such changes is stated in the analysis of claim 1 and incorporated herein by reference.

20. As per claim 11, Bessette suggests a healthcare system according to claim 9. However, Bessette discloses a system, wherein the terminals are thin client terminals, (Bessette, Col. 9, lines 1-5).

A discussion of the differences between Bessette and the claimed invention, why those differences would have been obvious to one of ordinary skill in the art, and the motivation to make such changes is stated in the analysis of claim 1 and incorporated herein by reference.

21. Claims 4-6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bessette in view of Burgess et al., (U.S. Pub. 2003/0163361).

22. As per claim 4, Bessette discloses a healthcare management system according to claim 1. However, Bessette fails to disclose a system wherein the data access layer comprises data access objects.

Burgess discloses a computerized tutorial system wherein mainstream object oriented programming methodology is used to develop complex applications such as a messaging interface, (Burgess, Fig. 25; ¶ 0037)(a messaging interface is analogous to a data access layer because both may be used to access data).

In view of Burgess, it would be obvious to one of ordinary skill in the art to construct the data access layer suggested by Bessette using object oriented

Art Unit: 3626

programming, the data access layer comprising data access objects. The motivation would be to create an expert medical instruction system utilizing artificial intelligence, (Burgess, ¶¶ 0002 and 0005).

23. As per claim 5, Bessette discloses a healthcare system according to claim 1. However, Bessette fails to disclose a system wherein the application later models patients as entities owning health track entities.

Burgess discloses constructing a business simulation program wherein insurance simulations have operators as entities, and a marketing simulation with consumers as entities. Burgess also discloses that entities can contain other entities, such as a bank account entity containing a savings account entity, (Burgess, ¶¶ 0060, 0061).

It would be obvious to one of ordinary skill in the art to combine the object oriented programming structure of the simulation programs in Burgess with the health care system in Bessette, to create a health care system wherein the application models patients as entities owning health track entities. The motivation would be to create an expert medical instruction system utilizing artificial intelligence, (Burgess, ¶¶ 0002 and 0005).

24. As per claim 6, Bessette discloses a healthcare system according to claim 5. However, Bessette fails to disclose a system wherein health track entities have associated activities.

Burgess discloses constructing a business simulation program wherein entities each have a set of properties that define and describe the entity, (Burgess, ¶¶ 0060, 0061).

It would be obvious to one of ordinary skill in the art to combine the object oriented programming structure of the simulation program in Burgess with the health care system in Bessette, to create health track entities having associated activities as properties. The motivation would be to create an expert medical instruction system utilizing artificial intelligence, (Burgess, ¶ 0002 and 0005).

25. As per claim 18, Bessette discloses a healthcare management system according to claim 12, However, Bessette fails to disclose a system wherein the application programs include an interactive training module.

Burgess discloses a system wherein the application programs include an interactive training module, (Burgess, ¶ 0005).

It would be obvious to one of ordinary skill in the art to combine the interactive training module in Burgess with the healthcare management system in Bessette. The motivation would be to create an expert medical instruction system utilizing artificial intelligence, (Burgess, ¶ 0002 and 0005).

26. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bessette in view of Burgess, and further in view of Lipkin, (U.S. Pub. 2002/0073080).

27. As per claim 7, the collective system of Bessette and Burgess disclose a healthcare system according to claim 5, wherein application logic in the application layer is implemented using Java, (Bessette, Col. 1, line 66). However, the use of enterprise Java beans is not explicitly disclosed.

Lipkin discloses constructing a software application platform using the well-known programming language of Java, utilizing enterprise Java beans, (Lipkin, ¶ 0042-0050).

It would be obvious to one of ordinary skill in the art to implement application logic using enterprise Java beans into the collective system disclosed by Bessette and Burgess. The motivation would be to create a system to interface with many other industry software programs to make the exchange of data easy and accurate, (Lipkin, ¶ 0040).

28. As per claim 8, the collective system of Bessette, Burgess, and Lipkin disclose a healthcare system according to claim 7. However Bessette and Burgess fail to explicitly disclose a system wherein the enterprise Java beans include session beans for implementing session specific logic.

Lipkin discloses including session beans for implementing session specific logic. (Lipkin, ¶ 0062-0066).

It would be obvious to one of ordinary skill in the art to include session beans for implementing session specific logic into the collective system disclosed by Bessette and Burgess. The motivation would be to create a system to interface with many other industry software programs make the exchange of data easy and accurate, (Lipkin, ¶ 0040).

29. Claims 14 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bessette in view of Mahran, (U.S. 6,581,038).

30. As per claim 14, Bessette discloses a healthcare management system according to claim 12. However, Bessette fails to disclose a system wherein the application programs include a program for giving medical practitioners medical options based on patient information entered by the practitioner.

Mahran discloses a system wherein the application programs include a program for giving medical practitioners medical options based on patient information entered by the practitioner, (Mahran, Col 16, lines 1-7, 46-57; Col. 18, lines 4-15).

It would be obvious to one of ordinary skill in the art to incorporate the application program disclosed in Mahran into the healthcare management system disclosed by Bessette. The motivation would have been to provide an automated system that generates individualized medical information for a patient based on information provided by the patient, and on knowledge extracted from medical research literature, (Mahran, Col. 2, lines 51-55).

31. As per claim 19, the collective system of Bessette and Mahran disclose a healthcare management system according to claim 14. Mahran further discloses a system wherein the medical opinion program interacts with a neural network to support the practitioner's decision-making process, (Mahran, Col. 17 lines 36-40; Col. 18, lines 61-65).

It would be obvious to one of ordinary skill in the art to incorporate the medical opinion program disclosed by Mahran into the healthcare management system disclosed by Bessette. The motivation would have been to provide an automated system that generates individualized medical information for a patient based on

information provided by the patient, and on knowledge extracted from medical research literature, (Mahran, Col. 2, lines 51-55).

32. As per claim 20, The collective system of Bessette and Mahran disclose a healthcare management system according to claim 18. Mahran further discloses a healthcare management system, wherein the neural network has a first interface comprising a practitioner guide, (Bessette, Fig. 1A; Fig. 4; Col. 6, line 63 through Col. 15, line 57).

It would be obvious to one of ordinary skill in the art to incorporate the neural network with a first interface comprising a practitioner guide, disclosed by Mahran, into the collective system disclosed by Bessette and Mahran. The motivation would have been to provide an automated system that generates individualized medical information for a patient based on information provided by the patient, and on knowledge extracted from medical research literature, (Mahran, Col. 2, lines 51-55).

33. As per claim 21, The collective system of Bessette and Mahran disclose a healthcare management system according to claim 19. Mahran further discloses a healthcare management system wherein the neural network has a second interface comprising a test bench, (Mahran, Col. 4, lines 24-35; Col. 18, line 43 through Col. 19, line 28)(generating probable outcomes and scores for different proposed treatments on a specific patient and then sorting the treatments according to scores is considered by examiner to be a test bench).

It would be obvious to one of ordinary skill in the art to incorporate a neural network with a second interface comprising a test bench, disclosed by Mahran, into the

collective system disclosed by Bessette and Mahran. The motivation would have been to provide an automated system that generates individualized medical information for a patient based on information provided by the patient, and on knowledge extracted from medical research literature, (Mahran, Col. 2, lines 51-55).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is as follows: Pestotnik et al, (U.S. Pub. 2004/0260666); Coli et al, (U.S. 6,018,713); Gilbert, (U.S. 6,381,576); Killcommons et al., (U.S. 6,424,996); Knapp, (U.S. 6,278,999); Bertrand et al., (U.S. Pub. 2004/0215587); Moore et al., (U.S. 5,446,885); Lowrey et al., (U.S. 6,374,229); DeLaHuerga, (U.S. 6,408,330).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell S. Glass whose telephone number is 571-272-3132. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on 571-272-6776. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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